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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/018,727

08/09/2002

Colin Robert Willis

41577/266144

5079

7590

09/28/2005

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EXAMINER

PADGETT, MARIANNE L

ART UNIT

PAPER NUMBER

1762

DATE MAILED: 09/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/018,727	Applicant(s) WILLIS ET AL.	
	Examiner Marianne L. Padgett	Art Unit 1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2005.
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,6-8,12-20 and 21 is/are pending in the application.
 4a) Of the above claim(s) 8 and 13-20 is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-4,6,7,12 and 21 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☒ The drawing(s) filed on 15 July 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/27/05</u> | 6) <input type="checkbox"/> Other: _____ |

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1. Applicants' amendments have corrected previously rejected & objected problems with the claims, specification & drawings.

2. Claims 1-4, 6, 12 & 21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Applicants addition of "a duty cycle of between 1:500 and 1:1000" to the independent claim encompasses New Matter, because while claim 7 and p.6 provide a specific example from which one may derive the newly claimed range, there is NO general teaching commensurate in scope with the breath of this new limitation. While p. also teaches that "suitable pulsing arrangements can be determined by routine methods in any particular case", providing the values in claim 7 (20 μ s ON & 10000 to 20000 μ s OFF) as a typical sequence, one example & routine experimentation, does not provide sufficient support to claim a range that reads on undisclosed values, such as 40 μ s ON & 20,000 to 40,000 μ s OFF, or 100 μ s ON & 50,000 μ s OFF, etc. A generic limitation calculated from a specific on encompasses the specific, but not the other way around, hence while routine experimentation may make extrapolation therefrom obvious to one of ordinary skill, obviousness does not provide support so support for the new limitation is lacking and encompasses New Matter.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

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Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-4, 6-7, 12 & 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Connell et al (UK 1,037,144), in view of Timmons et al (5,876,753) or visa versa, as discussed in sections 9 & 10 of the action mailed 1/12/05.

While Timmons et al's teaching of plasma polymerization of monomers using continuous or pulsed plasma, where use of low energy plasma as exemplified by a pulsed plasma of 200 W and on-off duty cycles of 3/5, 3/15, 3/45 and 3/60 ms as previously discussed, is not within applicants claimed duty cycle, use of such low energies enables the deposited polymer to retain active functional groups that can be employed in a derivation reaction to covalently couple to these groups, which are taught to include various O-containing functionalizations, including epoxy (table on col. 9). As previously stated it would have been further obvious to one of ordinary skill in the art when employing the pulsed plasma process to determine desirable ranges of pulsed plasma parameters for the polymerization reaction via routine experimentation to provide an effectively low power plasma as taught by Timmons et al, especially given their teaching on col. 7-8, that different reaction chambers provide additional variables for determining parameters, and employing taught power, on/off relationships as a guide to power (hence power density) and cycle time determination. It is noted that besides not actually disclosing the newly claimed duty cycle range, applicants specification does not provide any particular significance to either the specific example nor to duty cycle in general, considering determination of "pulsing arrangements" to be "routine", hence no unexpected or critical results is seen to be taught in association with these claimed values, & the general concept is covered by Timmons et al.

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6. It is noted that FR 2,581,991 to Delfort et al was cited by PCT continues to provide cumulative evidence that the amine groups provided to the active epoxy functional groups on the coated surface, would have been expected to proceed in a covalent coupling reaction or derivatization at the site of the epoxy as suggested and claimed, as well as providing further evidence of the known desirability of such reaction products.

7. Claims 1-4, 6-7, 12 & 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Timmons et al (753), in view of Kolluri et al (5,723,219), discussed above in sections 10, 12 & 13 of the action mailed 1/12/05.

8. Applicants IDS of 7/27/05 is made of record, however it remains noted that the citation of contents, cover pages, and prefaces of Books, is relatively meaningless, since none of the actual information provided by the book can be reviewed / is present for review.

9. Applicant's arguments filed 7/15/05 & discussed above have been fully considered but they are not persuasive.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marianne L. Padgett whose telephone number is (571) 272-1425. The examiner can normally be reached on M-F from about 8:30 a.m. to 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks, can be reached at (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MLP 9/25/05



MARIANNE PADGETT
PRIMARY EXAMINER